UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

OFFICE OF MARINE SAFETY

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INTERVIEW

RE:

FISHING VESSEL TAKI-TOOO

IN THE MATTER OF:
INTERVIEW OF
DEBORAH CHENOWITH,
CHIEF OF OPERATIONS
and
LUKE ELLIOT,
MANAGER PUBLIC RELATIONS
ARMY CORP OF ENGINEERS

FRIDAY,

September 12, 2003

The above-entitled interview was conducted at 8:36 a.m.

BEFORE: ROB JONES, Nat'l Transportation Safety Board

(Transcript produced from audio CD provided by the National Transportation Safety Board.)

P-R-O-C-E-E-D-I-N-G-S

8:36 a.m.

MR. JONES: On the record here. My name is Rob Jones. I'm the marine investigator with the National Transportation Safety Board and I'm talking to Deb Chenowith from the Army Corp of Engineers.

And, Deb, if you could explain your position.

MS. CHENOWITH: Legally Deborah Chenowith, Chief of Operations for the Portland District for the U.S. Army Corp of Engineers. You -- you want more explanation than that?

MR. JONES: That's fine.

MS. CHENOWITH: Okay.

MR. JONES: And, Luke?

MR. ELLIOT: SAYTOM (phonetic sp.), Public Affairs Specialist assigned to the coastal community.

MR. JONES: Okay. That was public

liaison
officer?

MR. ELLIOT: Public Affairs Specialist.

MR. JONES: Public Affairs Specialist? Okay. And we're here just conducting an interview with regards to the Taki-Tooo incident out at Tillamook bar and I'll just start with a couple questions for you.

MS. CHENOWITH: Okay.

MR. JONES: We were told that some of the
operators in the area -- well actually, you know, let
me start out separately.

Deb, can you give me a quick background on
that area and where it stands, you know, right now with regard to any type of surveys and/or work you're
either preparing to do or have something on the books
for the future? You know, what is the status of the
Tillamook bar in your estimation?

MS. CHENOWITH: Okay. I think the

first
important thing is to differentiate between the bar and the jetty.

MR. JONES: Okay.

MS. CHENOWITH: The jetty is a structure
that we built -- the north jetty was authorized in 1912 and it's 5,700 feet long. It was finished construction in -- in 1918 and then it was extended in
1933. There were some problems that were created by
having the single jetty. The south jetty (indiscernible) and (indiscernible) in 1965. It was
completed in 1979. Since 1979, the -- having both the
north jetty and the south jetty in place has functioned as designed to allow a natural scouring of
the channel. The authorized depth at which we are to
maintain the channel is 18 feet and what happens with
a total of five rivers emptying into Tillamook Bay

and
the very strong tidal action that occurs on a daily basis existing through the narrow passage of the jetty, it creates a self scouring that has maintained
itself at more than 18 feet since the completion of jetty in -- in 1979.

Now, the -- the issue that is frequently
brought up is the fact that we have significant deterioration on both the north and the south jetty and there is a need to come back in and put more rocks
back on the jetty. It has not deteriorated to the point that it has affected that scouring action. What
we're looking at and we have a study underway, we should have a report this fall on the recommendations
of what need to be done to make sure that the jetty does not fail. Once the jetty breaches, we will not
-- we do not expect to see that scouring action continue to occur.

So, the original purpose for putting

the
jetty in was to improve access into Tillamook Bay and
to reduce the cost of dredging out the sand through that entrance to Tillamook Bay. So, it's a -- it's a
structure that's long-term intention is to reduce the
need for continuous dredging.

Now the bar is a natural-occurring structure, I guess you want to call it, but a natural-
occurring phenomenon that happens at the mouth of rivers and bays and the construction of the jetty is
intended to try to offset that naturally-occurring accumulation of sand that occurs near the mouth of --
of river like that.

MR. JONES: Okay.

MS. CHENOWITH: We are not funded in future years for those repairs to the jetty. We -- we
can only expend funds as authorized by Congress. So,

we're doing the study. We -- we did obtain the funds from Congress to do the study of what's needed. That will give us an estimate of what it will cost to bring the jetty back to a stable structure that would not be in danger of being breached during a winter storm. So that's where we are right now with -- with -- the study will be finished this fall, then we'll be able to go back and tell Congress what it would take to fully repair the jetty.

MR. JONES: The jetties as they stand now, there's no plan to extend them. It would just be to repair them to the original length that they were out from the beach.

MS. CHENOWITH: Well, when I say the original length, I -- I -- I need to clarify that. It

-- it may recommend go to the original length. It may say cap it off where it is now. It has -- the head of the jetty has kind of been eaten back a little bit over the years and the study will determine what is necessary to maintain the channel depth at 18 feet. So I don't know what the conclusion of the report is yet.

MR. JONES: Okay. But by lengthening those jetties, is there any -- I'm sure this might be included in your report, but we heard questions or proposals that if they lengthen the jetty, do you see any positive influence occurring there with reducing the height of the waves or the wave action at the bar if you lengthen the jetties out further?

MS. CHENOWITH: I -- we have folks that do modeling studies to determine if that would in fact happen. I would be just guessing one way or the

other. I really don't know if it -- if it makes a difference. Regardless of how long the jetty is, there still reaches a point where the sand is deposited and so I don't know personally -- I don't have a educated technical opinion on whether a longer
jetty would make it less likely to have higher waves
or lower waves. That's -- that -- that requires a pretty extensive modeling study to do.

MR. JONES: Okay. You know, on my first
sight on out there, those were pretty extensive jetties, as they were.

MS. CHENOWITH: Right. Yes, they are.

MR. JONES: And the sand that you described dumping out there at the jaws or the mouth
of the jetty, is that a combination of both the silt
from the rivers being deposited there and/or the sand
from the ocean? One or the other, or both?

MS. CHENOWITH: It -- it -- it's both and

-- and you also have the impact of the long shore current. Sand is transported parallel to the coast line and it changes seasonally, and I can't tell you for sure, I think it moves south in the summer and north in the winter, but I could be wrong on that.

Anyhow, there -- there is a long shore current that also moves sand, as well as sand coming from the ocean towards the shore, as well a silt and sand being carried out from the estuary. So you've got a very dynamic situation going on there.

MR. JONES: Okay.

MR. ELLIOT: To reiterate too on the -- the jetties as they sit right now are functioning properly and they are maintaining a -- the 18 feet throughout the channel.

MS. CHENOWITH: Right.

MR. ELLIOT: So as for the current status, they are functioning properly. To go in and repair them is just to prevent future --

MS. CHENOWITH: Preventative maintenance.

MR. ELLIOT: Yes. Yes.

MR. JONES: So it would just be preventative maintenance on the jetties as they exist?

Now. Just back to what they were at one time, is that what you're saying?

MS. CHENOWITH: Well, that's what -- we want to do enough work to stabilize the jetties so they function effectively and -- and that links and size of rock and all that sort of thing are going to be very technical decisions that will be made. There has been a change over the time that the jetties have been in place in the number of storms, the size of waves, the frequency of the waves and the frequency of the storms. So we're calculating all those things in there too.

MR. JONES: Okay. Well along with those, the frequency numbers leads me to the next couple

questions. Do you by any chance keep track of when the Coast Guard there in Tillamook restricts that bar?

MS. CHENOWITH: No, we don't keep those records.

MR. JONES: Okay. We've asked for it from them, so we'll just continue to pursue that. How about records from NOAA, the National Oceanic and Atmospheric Administration?

MS. CHENOWITH: In -- in terms of specifically at the Tillamook bar?

MR. JONES: Yes, or if you have it for similar bars up and down the west coast that your group would be concerned with.

MS. CHENOWITH: I know we do have records for the mouth of the Columbia in terms of the size of waves and that sort of thing that are used in these studies, so I'm not sure what we have for the Tillamook bar, but I can ask.

MR. JONES: Yes, anything would be great.

But I mean we're just, you know, trying to get as

much
data as we can and sometimes, you know, the more we ask, the more we'll get and it might be something that
we had overlooked that you have already taken into account and incorporated. We're just looking for like, you know, the size of the seas and if they do not only a sea state analysis, but combined with, you
know, a wind from the west or an opposing wind from the east and how that affects the bar. But if you do
have it, that's kind of the information we'd like to
take a look at also.

MS. CHENOWITH: Sure. No problem. I'll
-- I'll see what we've got. It -- it probably isn't
a daily record. It's probably more along the lines of
extremes.

MR. JONES: And, you know, if it is extremes, which would be better because, you know, no

one wants to pore over data that's just calm water, if it is the extremes, which would mean it would be a less/more frequent as far as data totals go, but if they do keep it, if you can go back five or 10 years to just get an idea of -- that's what we're trying to ask the Coast Guard also, Deb, is how many times -- now of course it has to be a comparison to the weather at the time. But we've asked them how many times have they restricted the bar over the last 10 years.

MS. CHENOWITH: Okay.

MR. JONES: And you know that can be directly related to the actual size of the storm out there or whatever. But, you know, it's just something for our working knowledge.

MS. CHENOWITH: Sure. Sure, I can see how that would help. Okay. I'll -- I'll see what we can

get you.

MR. JONES: Okay. Now are you also in charge of any other inlets that are similar to Tillamook?

MS. CHENOWITH: Well, I'm -- I'm responsible for the navigation program along the entire Oregon coast.

MR. JONES: Well, that's a small enough area.

MS. CHENOWITH: Yes. I've got a few other things too. They're all really different. I mean, Tillamook is part of the largest estuary. Of course, Mouth of the Columbia is in a class by itself. Coos Bay is not really -- it's a very different kind of situation down there. It's not as -- not as rough a bar. I guess maybe the Rogue would be -- Siletz would -- would be a place that's -- that's always (indiscernible) to access, but they're -- that's a much smaller layout. We've got information about maintenance and -- and that sort of thing for the

Pacific coastline. It's really tough to say that there's anything comparable to Tillamook though.

MR. JONES: And each one is different in its own?

MS. CHENOWITH: Yes. They all have very unique wave patterns, geology.

MR. JONES: How about Newport?

MS. CHENOWITH: I mean, we have the information, but it's -- it's nowhere near as -- in alignment and everything else is -- is much different.

MR. JONES: Well, just to be, you know, totally honest with you, the questions that we get, and of course we're dealing with a small town in Tillamook -- well, Newport gets all the money. That gets all the dredging and Tillamook gets forsaken.

MS. CHENOWITH: The -- the reason Newport -- there's -- there's different issues here.

MR. JONES: And that's exactly what I'm trying --

MS. CHENOWITH: The physical dynamics

of
the function of the jetty I would say the scouring that occurs at the Tillamook jetty is one of the most
successful of any of the -- the jetties we have. In
other words, it -- it cleans itself out because of the
alignment, the volume of water that goes in and out of
that estuary every day. Again, they've got five
rivers that empty in there and it's a huge bay. The
Mouth of the Columbia and Newport get dredging on an
annual basis because there are deeper channels
authorized, much more traffic authorized and the --
the jetties do not stay at or below their authorized
depth. So we go to where they don't -- where -- where
the shoaling occurs that would impede navigation.

MR. JONES: Okay.

MS. CHENOWITH: And that's -- that's how

we make those --

MR. JONES: Determinations?

MS. CHENOWITH: We -- we do the hydro surveys up and down the coast. Then if it is funded,
we dredge where there is the need. So we need both the need to dredge based on the hydro surveys and the
funding to accomplish it.

MR. ELLIOT: When you look at Tillamook,
it's authorized at 18 feet in depth. So we can't go
out and deep dredge deeper than 18 feet without Congressional Authorization.

MS. CHENOWITH: Right.

MR. ELLIOT: Each year we go out and do a
survey that sits like 76 since construction of the top
jetty, it hasn't needed -- it hasn't been deep -- it
hasn't been shallower than 18 feet, so there's no Congressional authorization to dredge any deeper.

MS. CHENOWITH: Any deeper.

MR. JONES: Right.

MS. CHENOWITH: Whereas at -- at Newport, at the Mouth of the Columbia, we have shoaling that occurs that requires us to dredge to maintain the channel at the authorized depth.

MR. JONES: Does Congress mandate the depths for the other ports dredging also?

MS. CHENOWITH: Yes, there are -- there are designated depths for each of the harbors.

MR. JONES: So a survey has taken place at the other harbor sometime in the past and everybody has agreed to a certain depth and then that money was allocated by Congress to keep it at that depth?

MS. CHENOWITH: Well, I mean --

MR. JONES: Is that --

MS. CHENOWITH: -- real clear on the sequence. When the jetties are constructed, there is an -- or whatever, there is an authorized depth set by Congress.

MR. JONES: Okay.

MS. CHENOWITH: They -- they choose the depth based on studies and that sort of thing. Then on an annual basis, when we receive our funding, Congress allocates it by location and they prioritize it based on economic impact so that the large commercial-use harbors tend to be funded first so that you constantly have funding for the Mouth of the Columbia and Newport and that sort of thing. When the decisions are made at Congress about we don't have enough money to fund everything, Congress chooses how to prioritize at that point.

The other piece of the puzzle is that through OMB direction our budget policy for the Corp of Engineers has over the last few years restricted our dredging of small commercial-use, low-commercial or recreational harbors on both coastlines and those -- those projects have tended not to be funded.

MR. JONES: Okay.

MS. CHENOWITH: Even in the President's budget. Even before it goes to Congress. Occasionally because of local political interest and clout, some of those do get funded. But that's -- that happens at the D.C. level, not back here.

MR. JONES: Right.

MR. ELLIOT: There's a lot of interest on the ports up the coast on shallow draft and whether or not they get funding. But the unique part about Tillamook Bay is that it doesn't necessarily -- it's working. It's doesn't require us to go out and dredge.

MS. CHENOWITH: Right.

MR. ELLIOT: So we haven't needed to request funding for -- for the Bay.

MS. CHENOWITH: Right.

MR. JONES: Okay.

MS. CHENOWITH: So that -- it's -- it's not for -- Tillamook's in a unique situation that for

dredging maintenance we haven't needed funding because the jetty is functioning. The part about funding at Tillamook is not for maintenance dredging. It's can we get the jetty repaired so it continues to function successfully in the future?

MR. JONES: Okay.

MS. CHENOWITH: So there's maintenance dredging funding separate from maintenance of the jetty.

MR. JONES: Okay. Thanks. That was a great little quick explanation for me.

Have you received, because of the local interest there, any letters from, you know, the fishermen or just anyone in Tillamook Bay, you know, with regards to complaints about the dredging or the situation itself there at Tillamook?

MR. ELLIOT: I've actually received very little. I've received actually comments from some

of
the fishermen or one in particular that is supportive
of what we were saying on that -- the -- that it -- the dredge -- the channel is maintaining itself. I haven't received any negative comments.

MR. JONES: Well, you know what, Luke? Pro or con, if you'd be willing to send me that like
in a PDF form or a copy of it, fax it?

MR. ELLIOT: I will send you a copy of what he sent to the -- he sent a paper into the -- I
think the Tillamook Headlight-Herald.

MR. JONES: Yes, and your response?

MR. ELLIOT: I'll send a clipping of that
to you and then let me -- before I pass on any information that was sending to me, let me just clear
it with him it's okay.

MR. JONES: Okay. And if you have responded, if the Army Corp has responded in kind to
any type of questions like that --

MR. ELLIOT: Okay.

MR. JONES: -- that wouldn't be bad to have either.

MR. ELLIOT: Yes, I'll take a look at that.

MS. CHENOWITH: Yes, actually, considering the media attention, the number of letters that I've been aware of have been -- I can't even think of one. I mean, I've been down there and talked to the port managers and I've been down there, you know, for the -- Senator Smith public hearing and so on and got a lot of comments and discussion, but as far as receiving a letter, I can't even think of one that I've seen.

MR. JONES: Right.

MS. CHENOWITH: So it's kind of surprising.

MR. JONES: Well, Debbie, did something end up in the papers or did you put out a survey report recently with depths and soundings for the Tillamook bar that the locals there could have got

a handle on?

MS. CHENOWITH: Yes, what -- what -- what we did immediately following the accident is I moved up the schedule. It was scheduled to be done -- I can't remember the date -- it's scheduled to be done like the end of July and we moved it up a couple weeks so that we could get the depths and answer that question quickly. As soon as we completed the survey, actually the media got on board the boat. They literally fought over who got to be on the boat and we can tell you stories about that, to the point -- well, I won't go there. Anyhow, the media accompanied us when we did the hydro survey and as soon as we had the data verified, we issued a press release. I gave the port manager a copy of the survey and I gave

Senator Smith's staff a copy of the survey and it is available for whoever wants it and that was done probably 10 days after -- I can't -- I'm trying -- I'm trying to remember the date. But that's the survey I want to make sure you get.

MR. JONES: Yes, please.

MS. CHENOWITH: We moved it up. It would have -- it was scheduled anyway as an annual survey. We moved it up sooner because of the questions about had the -- had the bar silted in and was -- was that a factor, so we wanted to go back in and see was it shallower than 18 feet and what we found, it was not shallower than 18 feet. It was actually even a little deeper than the preceding year throughout the entire length of the authorized channel.

Now the other question that comes up, which you may have heard, are thoughts, opinions, conjecture that maybe we should dredge more than the authorized channel and we can't do that. You know, we -- we can't go up and down the entire coastline dredging beyond where we have Congressional authorization.

MR. ELLIOT: And even on dredging deeper, talking with some of the hydrographic scientists around here, they -- they seem to think that it may -- may or may not improve the situation. So there would have to be an extensive study on (indiscernible) going deeper with Congressional authorization would even approve.

MR. JONES: If that's in a report on paper somewhere, that wouldn't be bad to have either, Luke. If actually there's been surveys or there are

strong
feelings by the hydrologists that any changes could have a negative impact --

MR. ELLIOT: I don't think that's anywhere. I just -- listening to different people talk, there's a lot of conflict on whether or not it
would be beneficial or not.

MR. JONES: Okay.

MR. ELLIOT: I just don't -- until we have
Congressional authorization, we're -- we're doing what
we're -- what we're supposed to be doing by maintaining it at 18 feet.

MR. JONES: And just to clarify, is that
right out to the tips of the jetties, the 18 feet?

MS. CHENOWITH: Oh, the -- the 18 feet, yes. And actually it goes out beyond the tip of the
jetty.

MR. JONES: Okay.

MS. CHENOWITH: I -- I want to say a few

hundred feet, but I don't have the chart in front of me. But when we send you the chart, you'll see it pretty clearly.

MR. JONES: Is there a --

MS. CHENOWITH: It's -- it's marked on the -- on the chart what the authorized channel is.

MR. JONES: And what you're responsible for?

MS. CHENOWITH: Yes.

MR. JONES: Okay. That would be great, Deb. The reason I took the questioning that way was I had talked to the owners the other day with regard to other equipment and she said she was getting a lot of -- after they had seen the latest survey, she was going to fax me some questions which I, you know, more than welcomed from her from the fishermen, from some of the other boat owners and operators, that they

are
in verbal disagreement with your findings, that you know they're saying, "Their sounders must be wrong and whatever they're using for depth soundings and fedometers," with regards to some of the survey numbers. So, you know, I couldn't comment on it at the time. I just said, "You know, fax the questions
to me. I'll be more than happy to take a look at them."

MS. CHENOWITH: So it would probably be helpful for you to know what's on our survey boat, what equipment we use.

MR. JONES: That wouldn't hurt and it was
good you took the press out there with you. So, I mean, you know, without seeing what they have on their
boats and I'm think I can assume what you might have
on yours ius probably a little bit more extensive.

MS. CHENOWITH: I -- I am very comfortable
saying I'm sure it is.

MR. JONES: Yes.

MS. CHENOWITH: But it's -- it's -- yes, I can -- compared to a fishermen's depth sounder or whatever, our equipment is pretty high-tech.

MR. JONES: One of the other statements that was made is, and you can kind of see it on the chart as a -- I mean, I sailed for a long time, but a lay person to the bar in small boats, they have that southwest, like a southwest cut and a northwest cut that they try to proceed out through.

MS. CHENOWITH: Yes.

MR. JONES: And this is part of the natural cleansing of the bar. Is that what you're saying? Are those channels cut by the ebb tide?

MS. CHENOWITH: By the ebb tide and the long shore current. Both.

MR. JONES: Oh, okay. And the center part, the shallowest area, that's where it silts out, even though that's further out than the tips of the jetties?

MS. CHENOWITH: You're -- you're talking

about straight out from the mouth of the jetty?

MR. JONES: Yes, because they all said they can't go straight out. That's where it would be roughest, unless it's an absolutely calm day.

MS. CHENOWITH: Right. They have to go out and -- and turn south. That's part of the natural long shore -- the -- the reaction between the ebb tide and the long shore current creates that situation.

MR. JONES: Okay. And along with those two passes, they say the southwesterly one is becoming less and less user friendly, i.e., it's, you know, silting up more or shoaling up more.

MS. CHENOWITH: And that's beyond the bounds of our authorized channel to maintain.

MR. JONES: Right. So that would be your answer to that question?

MS. CHENOWITH: Yes.

MR. JONES: Yes. Which you kind of answered before. I just wanted to pose the question

as it was written to me.

MS. CHENOWITH: I -- I -- I do think it is an important factor that the chart and the situation has -- the path that's safest has -- has been fairly consistent through all the years and that the -- the charter fishermen that out of there are all very aware of that. I mean, they know where the -- the bars are and they know that that situation hasn't changed dramatically from year to year. It's not like one year it's north and one year it's south and one year it's the middle. It's -- it's been that alignment for quite a while.

MR. JONES: Okay. Along with the information you were going to give on the latest survey, you do surveys, what did you say, once a -- how often?

MS. CHENOWITH: Generally it's every

year.
You know, over the past 10 or 15 years we may have missed a year or two, but generally speaking it's every year.

MR. JONES: Can you give us the surveys for the past 10?

MS. CHENOWITH: Sure.

MR. JONES: All right. If that's not too much trouble. That seems like a good round number to, you know, go back with enough resolve.

MS. CHENOWITH: Okay.

MR. JONES: Now this is just based on our investigation while we're on scene. We're talking to just a lot of different people in general, fishermen, Coast Guard, other local personnel in the area. Their overall feeling, as they perceived it, was the bar was getting worse. Can you respond to that in any way?

MS. CHENOWITH: Not -- it's -- it's

tough
to say in terms of perception.

MR. JONES: Right.

MS. CHENOWITH: Like I said, I think the
charts for the last 10 years will probably tell you the most and that would be real data, as opposed to perception. The only change that I've seen from looking back through the data over the past number of
years is that the wave frequency, wave heights and storm frequency had gotten worse.

MR. JONES: Oh, global warming?

MS. CHENOWITH: I don't know.

MR. JONES: Yes.

MS. CHENOWITH: Something. Or it might be
part of a, you know, hundred-year cycle. Who knows.

MR. JONES: Right.

MS. CHENOWITH: But --

MR. JONES: It all, along with the depths
of the survey, it all has to be compared with the weather that they're experiencing.

MS. CHENOWITH: Right.

MR. JONES: So you could in effect say, "Well, the weather's gotten worse and the bar hasn't changed."

MS. CHENOWITH: That's possible. And -- and again, I don't know what -- about the tides either.

MR. JONES: Right.

MS. CHENOWITH: And that's -- that's the other part. The tides change, the weather changes and -- and the -- the shoaling does vary. But, we can't -- we can't extend money beyond where we're authorized to do so. So, if there is increased shoaling north or south of the authorized channel, our hands are tied at this point.

MR. JONES: Okay. Along with what both Luke and yourself were talking about, the possible

preventative maintenance at the jetties, do you have cost estimates of that? And if so, could we have that?

MS. CHENOWITH: That will be part of the report which we -- we could share with you once it's finished.

MR. JONES: Okay.

MS. CHENOWITH: It's -- it's going to be a couple more months.

MR. JONES: Well, I think ours will be a couple more months too. So that would be fine. You know, as soon as you have something, that would be great, even if it was a rough estimate.

MS. CHENOWITH: I can only give you rough -- rough estimates. If -- if any of it is going to be used for -- for budget submittal, I can't share that

part with you. So I've got to -- I -- I can give you -- ballpark estimates is probably the best I can give you.

MR. JONES: Okay.

MS. CHENOWITH: But we're -- we're talking millions and millions of dollars.

MR. JONES: Right.

MS. CHENOWITH: Just so you know.

MR. JONES: And I know this is conjecture, but you know, how long would those repairs or preventative maintenance last, or how much more time do you think that would give you?

MS. CHENOWITH: This is conjecture.

MR. JONES: Yes.

MS. CHENOWITH: One of our biggest problems with the increase in have height and frequency is that it requires much larger stones and finding the sources of the stone is becoming harder and harder and right now it looks like we may have

to
go to Alaska to get it. So it depends -- the -- the
length of time that the repairs are good for is a function of the size of the rock we're able to get and
so part of that is -- is going to go back to the sources of where we can find the rock and that -- that
will extend the length of time, the bigger the rock we
can get. If it's not available, then the -- the expected life cycle of -- of the repairs will -- will
vary depending upon that.

MR. JONES: Okay. That kinds of ends my
questioning. Anything else you can think of?

MS. CHENOWITH: Let -- let me just summarize so I know that we're all on the save wave length of what -- what we can send you.

MR. JONES: Sure.

MS. CHENOWITH: You're looking for the records from NOAA in terms of the sea state and -- and

weather, whatever we have on that.

MR. JONES: Yes.

MS. CHENOWITH: Going back 10 years again?

Is that --

MR. JONES: Yes, that would be great, if

you have that.

MS. CHENOWITH: Okay. You need the most

recent survey and then surveys going back 10 years?

MR. JONES: Yes, that would be fine.

MS. CHENOWITH: On the authorized channel.

We'll send you a description of what our survey equipment is and the Hickson that did the -- the survey so that you know what the equipment is compared

to what those that say, "Well, it's not a good survey." We can tell you what we used to do the survey.

MR. JONES: Okay.

MS. CHENOWITH: And Luke has some press releases or whatever that you're going to share with

him.

MR. ELLIOT: I'll share the inquiries I got with that one fellow.

MS. CHENOWITH: Okay.

MR. ELLIOT: And the surveys for the past 10 years. Is that the other thing you were looking at, the survey report?

MR. JONES: Yes.

MS. CHENOWITH: And then when we finish with our study on the jetty and what it's going to require, we'll -- we'll share that with you too.

MR. JONES: That would be great. And, Deb, this might be going outside the realm, but, boy, if you had something that described, just what you were describing to me, how the other bars are maintained in a different way because of different conditions, do you have any summation of anything like that?

MS. CHENOWITH: I'll -- I'll see what I can find.

MR. JONES: You know, because it does put

to rest questions from even in-house here. "Well, what do they do at Coos Bay? What do they do at Newport?" You know, it doesn't have to be long, but something that just identifies there are differences and this is why and that that's how they're maintained, like a quick summary of your operations at other -- not so much similar as in five estuaries emptying out at the Tillamook, but the Pacific west coasts that do require your attention.

MS. CHENOWITH: Okay. I'll see what I can come with. I've probably got -- by pulling a few things together, I can probably get 90 percent of it and then have somebody fill in the rest for you.

MR. JONES: And you can do that in your spare time when you're --

MS. CHENOWITH: Yes.

MR. JONES: -- out there in --

MS. CHENOWITH: Allegation there.

MR. JONES: Out there in Monticello.

MS. CHENOWITH: Yes.

MR. JONES: That's all I have right now, unless you can think of anything else while we're still on the record here.

MS. CHENOWITH: Well, I can't think of anything right now, but if -- if between Luke and I we come across some other information that we think will be useful, we'll just send it to you.

MR. JONES: Okay. I'm just going to stop the tape here then.

MS. CHENOWITH: All right.

(Whereupon, the interview was concluded at 9:13 a.m.)